via a bus 221. The applied relative delays control the steering and focusing of the synthesized receive beams. Each receive beamformer channel 225_i includes a variable gain amplifier, which controls gain as a function of received signal depth, and a delay element that delays acoustic data to achieve beam steering and dynamic focusing of the synthesized beam. A summing element 230 receives the outputs from beamformer channels 225_1, 225_2, …, 225_N and adds the outputs to provide the resulting beamformer signal to image generator 250, shown in detail in Fig. 5(1) - 5(5). The beamformer signal represents one receive ultrasound beam synthesized along one receive scan line.

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REMARKS

The Notice of Omitted Item states that Fig. 5 was omitted from the application as filed. It is noted, however, that Fig. 5, as identified in the specification, should have been Figs. 5(1) - 5(5). It also noted that Fig. 5A, as identified in the specification, should have been Figs. 5A(1) - 5A(2).

As correctly indicated in the Filing receipt dated September 20, 2001, 34 sheets of drawings were received by the U.S. PTO. Included in these 34 sheets of drawings are Figs. 5(1) - 5(5) and 5A(1) - 5A(2).

The specification has been amended to correct the typographical errors.

The Favorable reconsideration is respectfully requested.

In view of the foregoing amendments and remarks, Applicants

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respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached by telephone at the number given below.

Respectfully submitted,

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CERTIFICATE OF MAILING

It is hereby certified that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to:

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On Nov. 14, 2001
By Elissa DeLucy

APPENDIX OF SPECIFICATION AMENDMENTS

Page 12, paragraph 4, change as follows:

Fig. ~~5~~ 5(1) - 5(5) shows diagrammatically an image generator of the ultrasound system of Fig. 1.

Page 12, paragraph 5, change as follows:

Fig. ~~5A~~ 5a(1) - 5a(2) shows diagrammatically a control processor of the ultrasound system of Fig. 1

Page 18, paragraph 2, change as follows:

Figs. ~~5, 5A and 5B~~ 5(1) - 5(5), 5(A)(1) - 5(A)(2) show diagrammatically the imaging system according to a presently preferred embodiment. The entire operation of the imaging system is controlled by a control processor 140, shown in Fig. 5A. Control processor 140 receives input commands from input controls 142 through 167 and provides output control signals 170 through 191. Control processors 140 provides control data to a beamformer 200, and provides image control data to image generator 250, which includes processing and display electronics. Beamformer 200 includes a transmit beamformer 200A and a receive beamformer 200B, shown diagrammatically in Fig. 5B. In general, transmit beamformer 200A and receive beamformer 200B may be analog or digital beamformers as described, for example, in U.S. Patents 4,140,022; 5,469,851; or 5,345,426 all of which are incorporated by reference.

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Page 19, paragraph beginning of line 31, change as follows:

Control processor 140 provides delay commands to transmit beamformer channels 215_1, 215_2, …, 215_M via a bus 216_1, and also provides delay commands to the intra-group transmit pre-processors 210_1, 210_2, …, 210_M via a bus 211. The delay data steers and focuses the generated transmit beams over transmit scan lines of a selected transmit pattern, as shown for example in Figs. 6 through 6C. Control processor 140 also provides delay commands to receive beamformer channels 225_1, 225_2, …, 225_N via a bus 226 and delay commands to the intra-group receive pre-processors 220_1, 220_2, …, 220_N via a bus 221. The applied relative delays control the steering and focusing of the synthesized receive beams. Each receive beamformer channel 225_i includes a variable gain amplifier, which controls gain as a function of received signal depth, and a delay element that delays acoustic data to achieve beam steering and dynamic focusing of the synthesized beam. A summing element 230 receives the outputs from beamformer channels 225_1, 225_2, …, 225_N and adds the outputs to provide the resulting beamformer signal to image generator 250, shown in detail in Fig. ~~5~~ 5(1) - 5(5). The beamformer signal represents one receive ultrasound beam synthesized along one receive scan line.